CLAIM AMENDMENTS

Claims 1 through 28 (canceled)

29. (Currently amended) [[A]] An isolated ~~nucleotide sequence~~ nucleic acid from the gene SdaA according to SEQ ID NO: 1, isolated from and replicatable in a microorganism of the family Corynebacteria, and which encodes L-serine dehydratase, ~~but having~~ except that nucleotides from position 506 to position 918 have been completely ~~or partially~~ deleted, ~~or mutated so that said nucleotide sequence nucleic acid, when incorporated into a microorganism of the family Corynebacteria, in a culture medium containing the microorganism of the family Corynebacteria, expresses~~ wherein said nucleic acid encodes an L-serine dehydratase ~~to a lesser extent than the naturally occurring nucleotide sequence according to SEQ ID NO: 1, or does not express L-serine dehydratase at all~~ no longer having ~~reduced~~ enzymatic activity ~~when compared to the enzymatic activity of the L-serine dehydratase of SEQ ID NO:2 under the same conditions , thereby preventing enzymatic degradation of the L-serine to pyruvate following microbial production of L-serine from a carbohydrate~~.

30. (canceled)

31. (Currently amended) ~~A gene structure containing at least one~~ The ~~nucleotide sequence~~ nucleic acid from the gene sdaA according to claim 29, [[said]] wherein the nucleotide sequence of said nucleic acid ~~having~~ is operably linked to a regulatory sequence ~~operatively linked thereto~~.

32. (canceled)

33. (Currently amended) A vector ~~containing at least one gene structure~~ comprising the nucleic acid from the gene sdaA according to claim 31.

34. (canceled)

35. (Currently amended) A recombinant microorganism belonging to the family Corynebacteria, ~~whose genome includes~~ wherein said microorganism comprises ~~a series of~~ endogenous SerA-fbr, SerB and SerC genes, ~~Corynebacteria serine biosynthesis genes, which express enzymes that catalyze the synthesis of L-serine from a carbohydrate in a culture medium containing the microorganism of the family Corynebacteria, and which further includes an endogenous according to SEQ ID NO: 1 which encodes L-serine dehydratase, but having nucleotides from position 506 to position 918 completely or partially deleted, or mutated so that said nucleotide sequence, homologously recombined into the genome of the microorganism of the~~

~~family Corynebacteria, between nucleotide sequences SEQ ID NO: 3 and SEQ ID NO: 6 respectively flanking the 5' and 3' ends of said endogenous nucleotide sequence in a culture medium containing said recombinant microorganism of the family Corynebacteria, expresses L-serine dehydratase to a lesser extent than the naturally occurring L-serine dehydratase expressed according to SEQ ID NO: 1, or does not express L-serine dehydratase at all, thereby preventing enzymatic degradation of the L-serine to pyruvate following the microbial production of L-serine from a carbohydrate~~ wherein said recombinant microorganism is obtained by introducing a modification within an sdaA gene encoding an L-serine dehydratase via homologous recombination, wherein said sdaA gene prior to being modified comprises SEQ ID NO: 1, wherein the modification is made between nucleotides 506 and 918 of SEQ ID NO:1, wherein the modification is the complete deletion of nucleotides 506 to 918 of SEQ ID NO: 1, and wherein the modified L-serine dehydratase sdaA gene is not expressed in the recombinant microorganism at all.

36. (canceled)

37. (Currently amended) The recombinant microorganism defined in ~~claim 36~~ claim 35 belonging to the family Corynebacteria, wherein the microorganism is Corynebacterium Glutamicum ~~of the strain 13032ΔpanBCΔsdaApSerAfbrCB~~.

38. (canceled)

39. (currently amended) A probe for identifying and/or isolating ~~a nucleotide sequence that is~~ the polynucleotide of SEQ ID NO: 1 ~~nucleic acid which encodes L-serine dehydratase, an endogenous enzyme in microorganisms of the Corynebacteria family, which enzymatically degrades L-serine, microbially produced from a carbohydrate in a culture medium containing the microorganisms of the Corynebacteria family~~, wherein the probe is a ~~nucleotide sequence~~ nucleic acid selected from the group consisting of:
TCGTGCAACTTCAGACTC (SEQ ID NO:3);
CCCATCCACTAAACTTAAACACGTCATAATGAACCCACC (SEQ ID NO:4);
TGTTTAAGTTTAGTGGATGGGCCGACTAATGGTGCTGCG (SEQ ID NO:5); and
CGGGAAGCCCAAGGTGGT (SEQ ID NO:6).

40. (new) A recombinant microorganism belonging to the family Corynebacteria, wherein said microorganism comprises endogenous SerA-fbr, SerB and SerC genes, wherein said recombinant microorganism is obtained by introducing a modification within an sdaA gene encoding an L-serine dehydratase via homologous recombination, wherein said sdaA gene prior to being modified comprises SEQ ID NO: 1, wherein the modification is made between nucleotides 506 and 918 of SEQ ID NO:1, wherein the modification is the complete deletion of nucleotides 506 to 918 of SEQ ID NO: 1,

and wherein following the modification, L-serine dehydratase is not expressed in the recombinant microorganism at all.

41. (new) A recombinant microorganism belonging to the family Corynebacteria, wherein said microorganism comprises endogenous SerA-fbr, SerB and SerC genes, wherein said recombinant microorganism is obtained by completely deleting the L-serine dehydratase sdaA gene by directed recombination, wherein said L-serine dehydratase sdaA gene comprises SEQ ID NO: 1, and wherein following deletion of the L-serine dehydratase sdaA gene, L-serine dehydratase is not expressed in the recombinant microorganism at all.